

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MISSOURI  
SOUTHEASTERN DIVISION**

JAMIE KAUFMANN WOODS, et al.,

Plaintiffs,

v.

BOB WILLS, et al.,

Defendants.

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No. 1:03-CV-105 CAS

**MEMORANDUM AND ORDER**

This matter is before the Court on defendants' motion to exclude evidence from plaintiffs' expert witness, Mr. Ben Corpus. Plaintiffs oppose the motion. For the following reasons, the Court will grant defendants' motion.

**Background.**

Plaintiffs Shari Lueken and Erika Teasley contend in this action, inter alia, that the defendants surreptitiously gave them prescription drugs including chlorpromazine, carbamazepine and/or thioridazine. In plaintiffs' Rule 26(a) disclosures, they identified "Benito Corpus, M.D." as a retained expert, and subsequently produced an expert report prepared by Benjamin Corpus. In the report, Mr. Corpus offered statements and opinions about the validity and reliability of certain toxicological testing, the basis for the testing, the results of certain toxicological tests, and references to the effects of the subject prescription drugs on persons. Specifically, Mr. Corpus opined that laboratory analysis of hair samples taken from Ms. Lueken and Ms. Teasley showed the presence of chlorpromazine and carbamazepine in Ms. Lueken's hair. Mr. Corpus also referred to a test performed by another laboratory on a blood sample given by Ms. Teasley, and attempted to correlate certain symptoms in the plaintiffs' medical records with the ingestion of chlorpromazine.

In moving to exclude Mr. Corpus' testimony, defendants state that Mr. Corpus is a laboratory technician and not a physician, toxicologist or pharmacologist qualified to testify about toxicology and toxicological testing. Defendants move to exclude evidence from Mr. Corpus on the basis that (1) he lacks the education, professional training and experience to offer expert opinions about toxicology to a jury, and (2) he is not qualified to establish whether the testing he performed and his opinions are relevant and reliable.

Plaintiffs respond that although Mr. Corpus is not a medical doctor, he is an expert and has testified in multiple actions concerning toxicology or the presence of alcohol or drugs in human tissue. Plaintiffs contend that defendants' objections go to the weight and not the admissibility of Mr. Corpus' proposed testimony, and are a proper subject for cross examination. Finally, in the event Mr. Corpus' testimony is excluded, plaintiffs request additional time to secure another expert witness.

#### **Legal Standard.**

The admission of expert testimony in federal court is governed by Federal Rule of Evidence 702. Lauzon v. Senco Prods., Inc., 270 F.3d 681, 686 (8th Cir. 2001). "Rule 702 reflects an attempt to liberalize the rules governing the admission of expert testimony." Weisgram v. Marley Co., 169 F.3d 514, 523 (8th Cir. 1999), aff'd, 528 U.S. 440 (2000). The Rule "favors admissibility if the testimony will assist the trier of fact." Clark v. Heidrick, 150 F.3d 912, 915 (8th Cir. 1998). Doubt regarding "whether an expert's testimony will be useful should generally be resolved in favor of admissibility." Id. (citation and internal quotation omitted). "The proponent of the expert testimony must prove its admissibility by a preponderance of the evidence." Lauzon, 270 F.3d at 686 (citing Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 592 (1993)).

In Daubert, the United States Supreme Court interpreted Rule 702 to require district courts to be certain that expert evidence based on scientific, technical or other specialized knowledge is “not only relevant, but reliable.” Daubert, 509 U.S. at 589. The district court must make a “preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.” Daubert at 592-93.

The Eighth Circuit has explained that proposed expert testimony must meet three criteria to be admissible under Rule 702:

First, evidence based on scientific, technical, or other specialized knowledge must be useful to the finder of fact in deciding the ultimate issue of fact. This is the basic rule of relevancy. Second, the proposed witness must be qualified to assist the finder of fact. Third, the proposed evidence must be reliable or trustworthy in an evidentiary sense, so that, if the finder of fact accepts it as true, it provides the assistance the finder of fact requires . . . .

The basis for the third prerequisite lies in the recent amendment of Rule 702, which adds the following language to the former rule: ‘(1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.’ Fed. R. Evid. 702.

Lauzon, 270 F.3d at 686 (internal citations and punctuation omitted).

The Daubert decision lists several nonexclusive factors a court may examine in performing its “gatekeeper” role of screening expert testimony for relevance and reliability. These are: “(1) whether the theory or technique can be (and has been) tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) the known or potential rate of error; and (4) whether the theory has been generally accepted.” Lauzon, 270 F.3d at 686-87 (internal citations and punctuation omitted). Additional factors which have been developed in subsequent cases include “whether the expertise was developed for litigation or naturally flowed from the expert’s research;

whether the proposed expert ruled out other alternative explanations; and whether the proposed expert sufficiently connected the proposed testimony with the facts of the case.” Id. (citations omitted). The Daubert list of factors is not exclusive, and does not function as a definitive “checklist or test.” Daubert, 509 U.S. at 593-94. Instead, the trial court retains great flexibility in customizing the analysis to fit the facts of each case. See Jaurequi v. Carter Mfg. Co., Inc., 173 F.3d 1076, 1083 (8th Cir. 1999).

“Regardless of what factors are evaluated, the main inquiry is whether the proffered expert's testimony is sufficiently reliable. See Unrein v. Timesavers, Inc., 394 F.3d 1008, 1011 (8th Cir. 2005) ([t]here is no single requirement for admissibility as long as the proffer indicates that the expert evidence is reliable and relevant’).” First Union Nat’l Bank v. Benham, 423 F.3d 855, 861 (8th Cir. 2005).

### **Factual Background.**

Defendants’ challenge to plaintiffs’ proposed expert testimony is based on the second Daubert factor, whether the witness is qualified to assist the finder of fact. Defendants assert that because Mr. Corpus is a lab technician, he is not qualified to testify to the matters contained in the expert report, and lacks the education or professional training to explain the validity or reliability of the tests he conducted. Defendants state that Mr. Corpus is not a toxicologist or physician, does not have an undergraduate degree in toxicology, has no post-graduate degrees, and has had no courses focused on pharmacology or toxicology. Defendants state that the individual named “Benito Corpus, M.D.,” who was referenced in the Rule 26(a) disclosures and in the expert report, is Mr. Corpus’ father, a retired physician who was not involved in any of the testing, reporting or opinions in this case.

Plaintiffs respond that “most unfortunately, Mr. Corpus passed himself off as a medical doctor despite the fact that he was not a medical doctor. Plaintiff [sic] counsel was surprised to learn that he was not a medical doctor, at the deposition.” Pls.’ Response at 2. Nonetheless, plaintiffs assert that Mr. Corpus is an expert in his field because his job is testing for the presence or absence of drugs in the human body. Plaintiff state that Mr. Corpus has testified in several lawsuits concerning the presence of alcohol or drugs in human tissue.

The record before the Court shows that Mr. Corpus has a Bachelor of Science degree in microbiology. He has previous experience working as a lab clerk in a hospital, entering test requests and test results into a computer database. Since 1994, Mr. Corpus has been affiliated with a privately-owned company, Toxicology Associates, Inc. (“TAI”), which he has owned since 1995. Mr. Corpus began working for TAI as a technician and secretary after he graduated from college. Through on-the-job training, he learned to run certain types of tests to determine the presence of certain drugs in human specimens, which is TAI’s only business. Mr. Corpus still works as a technician at TAI. Mr. Corpus is not certified or accredited as a toxicologist, and did not know of any national boards or associates that certify toxicologists. Mr. Corpus is not a member of any professional associations on the subject of toxicology, and he does not subscribe to any professional toxicology journals.

For the testing at issue in this case, TAI received two samples of hair which purport to be from plaintiffs Ms. Lueken and Ms. Teasley. Mr. Corpus did not personally take the samples from the plaintiffs. Instead, the samples were mailed to TAI. Mr. Corpus was not the person at TAI who received the samples.

### **A. Shari Lueken's Hair Sample.**

Mr. Corpus testified that he thought the Lueken hair sample was approximately 39 centimeters (cm.) long when it was received at TAI, but could not testify to that with complete certainty. Mr. Corpus also testified that the hair sample should have been measured when it was received, but he could not state if that had been done. Mr. Corpus measured the hair sample himself and determined that it was approximately 39 cm. The length of the hair sample is important, because Mr. Corpus' report correlates the length of the hair he tested to a time period when Lueken was at defendants' school.

Mr. Corpus stated that he cut 3 cm. from the tip of Ms. Lueken's hair sample (thought to be furthest from the scalp) for testing. He did not perform any testing on the remainder of the hair sample. Mr. Corpus did a gas chromatograph/mass spectrometry (GC/MS) test on the hair sample which he asserts showed the presence of chlorpromazine and carbamazepine.<sup>1</sup> Mr. Corpus opined that the 3 cm. sample that was tested grew from Ms. Lueken's head between June 16, 2000 and September 16, 2000, which is significant because Ms. Lueken was enrolled at defendants' school on June 23, 2000.

To support his opinion on the age of the tested hair, Mr. Corpus contended that hair grows at the rate of one cm. per month, and therefore the part of the sample he tested would have been between 36 and 39 months old at the time it was taken from Ms. Lueken's head. Mr. Corpus relied

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<sup>1</sup>GC/MS "is the most sensitive and specific method of drug detection available. It adds the highly specific and precise technology of mass spectrometry, which measures the basic ion structure of compounds. GC/MS is an assay procedure which analyzes the unique ion fragmentation ("fingerprint") of drugs. Fragmentation of the drug molecule is accomplished by either chemical ionization or electron impact ionization. This procedure is widely recognized as the "state-of-the-art" in drug detection. Its selectivity and accuracy are so precise that it can measure minute quantities of drugs in urine." United States v. Arguello, 29 M.J. 198, 201 n.4 (C.M.A. 1989) (quoting Air Force Regulation 30-2, §B 5-3.b (18 Apr 1986)).

on an article from the Journal of Analytical Toxicology for the growth rate of Ms. Lueken's hair, but at deposition could not state the title of the article or what issue it was contained in. Mr. Corpus testified that the article stated human hair grows between one and one and a half centimeters per month. Mr. Corpus did not personally study the actual growth rate of Ms. Lueken's hair, and never looked at or analyzed the structure of the drug compounds he was testing for.

#### **B. Erika Teasley's Hair Sample.**

Mr. Corpus also tested a hair sample purported to be taken from Erika Teasley, that was 30.2 centimeters long. The test did not detect any carbamazepine, chlorpromazine or thioridazine in Ms. Teasley's hair.

In his report, Mr. Corpus also made reference to a test performed on a blood sample given by Ms. Teasley, and offers opinions based on that report, including that Ms. Teasley's blood showed the presence of chlorpromazine. Mr. Corpus did not take or test the blood sample, and did not speak with any person from the laboratory that did test the sample. In the discussion section of the report, Mr. Corpus attempts to correlate certain symptoms reported in the plaintiffs' medical records with the ingestion of chlorpromazine. In deposition testimony, however, Mr. Corpus stated that he could not actually correlate or attribute any symptoms suffered by Ms. Teasley and Ms. Lueken to the ingestion of chlorpromazine or other medicines, and was speculating as to a potential cause for the symptoms.

#### **Discussion.**

Defendants assert that the subject of toxicological tests, the reliability, methodology and validity of those tests and corresponding opinions requires expert testimony from a toxicologist, citing Jones v. Lincoln Electric Company, 188 F.3d 709, 723-24 (7th Cir. 1999), cert. denied, 529 U.S.

1067 (2000). In Jones, the Seventh Circuit held that an expert in metallurgy lacked sufficient expertise to testify about conclusions of a joint research study concerning toxicity of manganese in welding fumes and the human lung's ability to absorb manganese from those fumes. Id. Although the witness had personal knowledge of the study's findings, the issue of how certain substances are absorbed into the body was outside his expertise because he was not a toxicologist, and the Court concluded the expert lacked the necessary medical knowledge and training to explain how the findings were reached. Id.

Plaintiffs respond that this case is distinguishable from Jones because the issue here is whether drugs were administered to plaintiffs without their knowledge and consent. Plaintiffs assert that if their expert "is not qualified to answer questions about the effect of the drug, then he should be enjoined only from answering questions about that particular subject." Pls.' Resp. at 3. Plaintiffs state that Mr. Corpus' job is testing for the presence or absence of drugs in the body, and that he has been allowed to testify in other cases.<sup>2</sup> Finally, plaintiffs attach to their response a copy of an article by Edward J. Cone, David Yousefnejad, William D. Darwin and Tom Maguire, *Testing Human Hair for Drugs of Abuse. II. Identification of Unique Cocaine Metabolites in Hair of Drug Abusers and Evaluation of Decontamination Procedures*, Vol. 15 Journal of Analytical Toxicology 250 (Sept.-Oct. 1991), which Mr. Corpus cites to support his assertion that human hair grows at the rate of one

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<sup>2</sup>In support of this assertion, plaintiffs attach an unverified chart to their Response, which purports to list eight cases in which Mr. Corpus testified in court. Two of the listings contain no substantive information as to the subject of his testimony. The others six list, in order, the following information as the subject matter of Mr. Corpus' testimony: "Adulteration of Urine for Drugs of Abuse Screening; False Positive Cocaine as a result of taking multiple medications and Immunoassay method; Substance identified to be Acetaminophen (Tylenol) not any illegal substance; Cocaine substance findings; DUI Ethanol Determination; Ethanol (Ethyl Alcohol) determination." No further substantive information concerning the nature of Mr. Corpus' testimony was provided.



centimeter per month. Plaintiffs do not offer any citations to case law or other argument or authority in support of their proffered witness.

**A. Daubert Analysis.**

The Court must determine whether Mr. Corpus is qualified to assist the finder of fact in this case. See Lauzon, 270 F.3d at 686. Generally, in cases concerning the reliability, methodology and validity of toxicological tests, courts have held that expert testimony from toxicologists or similarly qualified witnesses is required.<sup>3</sup> See, e.g., Ruiz-Troche v. Pepsi Cola of Puerto Rico Bottling Co., 161 F.3d 77, 83-85 (1st Cir. 1998) (pharmacologist could testify concerning the amount of drugs a driver consumed and the amount of their consumption by interpolating from toxicology results of driver's blood, urine, nasal passages and vitreous humor); Cooper v. Laboratory Corp. of America Holdings, Inc., 150 F.3d 376, 380 (4th Cir. 1998) (district court properly excluded proffered expert's testimony concerning urine alcohol testing where witness was not a toxicologist and had no experience, beyond a general knowledge of chemistry, of forensic toxicology); see also Jones v. Lincoln Electric Co., 188 F.3d at 723-24 (expert in metallurgy lacked sufficient expertise to testify about conclusions of a joint research study concerning toxicity of manganese in welding fumes and the human lung's ability to absorb manganese from those fumes; expert was not a toxicologist and lacked the necessary medical knowledge and training to explain how the findings were reached).

The Federal Judicial Center's Reference Manual on Scientific Evidence , Second Edition (2000), in the chapter titled "Reference Guide on Toxicology," discusses the expert qualifications of

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<sup>3</sup>Toxicology has been defined as "the study of the adverse effects of chemicals on living organisms." Casarett and Doull's Toxicology: The Basic Science of Poisons 13 (Curtis D. Klaassen ed., 5th ed. 1996). Toxicological evidence can explain "how a chemical causes a disease by describing metabolic, cellular, and other physiological effects of exposure." Reference Manual on Scientific Evidence , Second Edition, "Reference Guide on Toxicology" § 1 at 403 (Fed. Jud. Ctr. 2000).

a toxicologist and notes that “no single academic degree, research speciality, or career path qualifies an individual as an expert in toxicology” because toxicology is a “heterogenous field.” Id., § II at 415. Nonetheless, “[a] proposed expert should be able to demonstrate an understanding of the discipline of toxicology, including statistics, toxicological research methods, and disease processes.” Id. at 416. The Reference Manual offers suggested “indicia of expertise” which are relevant to both the admissibility and weight of a proffered expert opinion, including: (1) whether the proposed expert has an advanced degree in toxicology, pharmacology or a related field, and if the expert is a physician, is he board certified in a field such as occupational medicine; (2) whether the proposed expert has been certified by the American Board of Toxicology, or does he belong to a professional organization such as the Academy of Toxicological Sciences or the Society of Toxicology; and (3) what other criteria does the proposed expert meet, such as quality and number of peer-reviewed publications, service on scientific advisory panels, and university appointments. Id. at 415-18.

The parties have done little to assist the Court in determining the specific issue of the qualifications a witness should have in order to testify concerning gas chromatograph/mass spectrometry (GC/MS) analysis of hair for prescription medications. The Court in independent research has found no cases in the Eighth Circuit at either the circuit or district level which address GC/MS analysis, and only a few federal or state decisions which address the subject. The cases which address GC/MS analysis primarily concern its use to detect cocaine and other illegal drugs in substances other than human tissue. The Court found no cases which address GC/MS analysis to detect prescription drugs, as in the present case.

The only decisions this Court has found concerning the admissibility of GC/MS hair analysis are from the courts of military justice. In United States v. Bush, 44 M.J. 646 (A.F. Ct. Crim. App.

1996), aff'd, 47 M.J. 305 (C.A.A.F. 1997), cert. denied, 522 U.S. 1114 (1998), the U.S. Air Force Court of Criminal Appeals held in a case of first impression that GC/MS hair analysis was properly admitted in a court-martial to prove the accused's unlawful use of cocaine. Applying Daubert and Military Rule of Evidence 702, the court found that mass spectrometer analysis of hair samples was accepted as scientifically reliable in the relevant community of forensic chemistry, had been subjected to peer review, and was the subject of a growing body of professional publications and studies. Id. at 651-52.<sup>4</sup>

In Bush, there were no challenges to the expert witnesses' qualifications. The government introduced the mass spectrometer test results through an expert in the field of forensic toxicology and hair analysis with the Federal Bureau of Investigation, who personally performed the analysis using "a state of the art, relatively rare, tandem stage quadrupole mass spectrometry machine."<sup>5</sup> The defense produced "a similarly distinguished forensic toxicologist" as a witness. Id. at 651. Both experts agreed on the scientific validity and the reliability of the MS/MS analysis and on the foundational principle of hair analysis itself. The experts also agreed that once cocaine is ingested it appears in the hair, although uncertainty existed as to how it gets there, and there was "general harmony between the two on the relevant science and methodology" employed in the case. Id. at 651. Based on the foregoing, the court found that the defendant through his expert essentially "conceded the two principal threshold scientific hypotheses: (a) that cocaine appears in the hair of users; and (b) that scientific analysis using MS/MS (or even GC/MS) instruments can reliably and

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<sup>4</sup>The Court has been unable to locate the text of Military Rule of Evidence 702, but from the context of the case it appears likely the Rule is comparable to Federal Rule of Evidence 702.

<sup>5</sup>In a footnote, the court stated that the tandem stage quadrupole mass spectrometry machine (MS/MS) "represents a quantum advance over GC/MS, the system used in most urinalysis cases." Bush, 44 M.J. at 650, n.6.

validly detect that cocaine.” Id. The court concluded that “with proper controls, chain of custody, scientific methodology, and instruments of sufficient sensitivity, cocaine found in hair is strongly indicative that cocaine was at some point ingested by the subject, and may properly be considered evidence of wrongful use of that drug.” Id.

In Bush, both experts were highly-credentialed forensic toxicologists. Because the GC/MS hair analysis testing procedure was novel, it was critical to the court’s decision that the witnesses were qualified to testify concerning the threshold foundational issues presented in the case-- specifically that cocaine appears in the hair, and that scientific analysis using GC/MS tests can validity and reliably detect cocaine in the hair.

The validity of GC/MS hair testing for prescription drugs is a novel issue in this circuit, and therefore similar foundational evidence must be presented. There are several fundamental threshold scientific hypotheses at issue in this case, including: (1) the scientific validity and the reliability of the GC/MS analysis; (2) that chlorpromazine, carbamazepine and/or thioridazine appear in the hair of those who ingest these drugs; and (3) that scientific analysis using GC/MS instruments can reliably and validly detect these drugs in hair. In addition, other foundational scientific questions are present, including the growth rate of human hair and the accuracy, reliability or validity of pinpointing dates of past drug exposure based on hair growth rates.

The Court concludes that Mr. Corpus is not qualified to testify concerning these threshold scientific hypotheses, because he lacks the necessary educational background and professional training. This conclusion is based on the general principle that the testimony of a toxicologist or similarly qualified expert is required on the subject of toxicological tests, and the reliability, methodology and validity of those tests, on the Bush case which addressed the admissibility of

GC/MS hair analysis test results, and as discussed below, on cases which address the admissibility of similar scientific test results.

Several decisions concern the admissibility of radioimmunoassay hair (RIAH) analysis, a different procedure than GC/MS but comparable to the extent it is intended to reveal drug use over a period of months while hair is growing and absorbing drug traces through the blood stream. See United States v. Medina, 749 F. Supp. 59, 61 (E.D.N.Y 1990).<sup>6</sup> These decisions are sufficiently analogous to the present situation to offer some guidance as to the required qualifications of an expert witness whose testimony will be used to offer results of a novel toxicological test into evidence. In the two decisions discussed below, the testimony of highly qualified and credentialed expert toxicologists was crucial to the courts' findings that radioimmunoassay hair analysis was generally accepted in the scientific community as an accurate and reliable method of detecting drug use.

In Nevada Employment Security Department v. Holmes, 914 P.2d 611 (Nev. 1996), the Nevada Supreme Court held that RIA hair analysis showing the presence of cocaine was substantial evidence supporting the defendant's dismissal from employment. The Court found that RIAH testing was generally accepted in the scientific community based on testimony from two expert witnesses as well as articles from scientific and medical journals. The first witness was a research scientist and neuroscience Ph.D. candidate who testified as to the test results and that an independent research organization had found the RIA test performed by his company to be one hundred percent accurate

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<sup>6</sup>The RIAH test is less reliable than the GC/MS test. See, e.g., United States v. Arguello, 29 M.J. 198, 201 n.4 (C.M.A. 1989), aff'd, 30 M.J. 219 (C.M.A. 1990), cert. denied, 498 U.S. 846 (1990). See also United States v. Foote, 898 F.2d 659, 665 (8th Cir.) (holding that a district court did not abuse its discretion in refusing to require an undercover police officer to undergo RIAH testing, noting that the district court described the test as "intrusive" and "unreliable" in nature), cert. denied sub nom Thompson v. United States, 498 U.S. 838 (1990), and Williams v. United States, 498 U.S. 938 (1990).

in avoiding false positives. The second witness was a research toxicologist and emeritus professor of pharmacology who testified that the RIA drug testing methodology used by the testing company was widely accepted in the scientific community.

In In re Adoption of Baby Boy L, 596 N.Y.S.2d 997 (N.Y. Fam. Ct. 1993), the court was required to determine whether RIAH test results were admissible. The test results were introduced through the testimony of an expert toxicologist and professor of pharmaceutical sciences who performed the testing. The court noted that the expert was formerly the Chief Toxicologist in the Nassau County Office of Medical Examiner and a consulting forensic toxicologist for a county medical examiner's office, was associated with numerous scientific organizations and institutions, had served as president of the Society of Forensic Toxicologists, and was widely published in the field of forensic toxicology including the area of radioimmunoassay testing. The court found the RIAH analysis admissible based on the toxicologist's opinion that the procedure was "generally accepted by the scientific (toxicological) community as an accurate and reliable method of measuring drug use, particularly when confirmed by way of GCMS procedures." Id. at 356. The opposing expert was also a forensic toxicologist. Id. at 357.

The Bush, Nevada Employment Security and Baby Boy L cases indicate that when GC/MS or RIAH testing is done on human hair, the testimony of a toxicologist or similarly qualified expert is required to provide a proper foundation for admission of the test results.<sup>7</sup>

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<sup>7</sup>In two other cases, the qualifications of expert witnesses testifying about GC/MS test results on substances other than human tissue were challenged. In both cases, the test results were properly introduced through the testimony of experienced chemists. In Lopez v. State, 2005 WL 1405770 (Tex. App. June 16, 2005), the expert testified that he performed GC/MS testing of a substance which turned out to be heroin. The trial court rejected the defendant's Daubert challenge to the expert's qualifications, based on the expert's testimony that he was a criminalist/chemist with thirteen years' experience analyzing controlled substances for the Texas Department of Public Safety (DPS), he had a B.S. degree in chemistry, and he had undergone advanced training in chemistry at both a

The record shows Mr. Corpus has a B.S. degree in microbiology and practical training and experience in conducting GC/MS testing in the laboratory setting. Practical training and experience as well as academic training and credentials may be the basis of expert testimony. Federal Crop Ins. Corp. v. Hester, 765 F.2d 723, 728 (8th Cir. 1985). In this case, in the absence of Eighth Circuit precedent concerning GC/MS analysis, and the relative dearth of such precedent elsewhere, it would be necessary for expert testimony concerning the fundamental threshold scientific hypotheses discussed above: (1) the scientific validity and the reliability of the GC/MS analysis; (2) that chlorpromazine, carbamazepine and/or thioridazine appear in the hair of those who ingest these drugs; and (3) that scientific analysis using GC/MS instruments can reliably and validly detect these drugs in hair. In addition, it would be necessary to have expert testimony concerning the rate of human hair growth and the accuracy, reliability or validity of pinpointing dates of past drug exposure based on hair growth rates. A laboratory technician with Mr. Corpus' education and practical experience in conducting GC/MS tests is simply not qualified to provide this type of testimony.

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university and the DPS laboratory. The witness also testified as to the acceptance within the scientific community of tests he performed as a valid method for identifying the composition of controlled substances. Id. at \*\*1-2. The court concluded the testimony was properly admitted, based on the witness' specialized training and extensive experience in analyzing controlled substances, together with his testimony concerning scientific acceptance of the tests.

In Markley v. State, 603 N.E.2d 891 (Ind. Ct. App. 1992), the defendant argued that the state failed to establish a proper foundation for the admission of GC/MS tests and expert opinion concerning blotter paper which tested positive for LSD. The court rejected this argument and found that the expert had sufficient knowledge and experience in the field to provide a foundation for admission of the test results. The expert had a B.S. in chemistry, attended various schools and seminars for forensic chemists and in the use of scientific laboratory instruments, and worked for the Indiana State Police Laboratory for approximately twelve years where his duties included testing evidence suspected of containing controlled substances. Id. at 893. The expert testified extensively concerning the tests he had performed and the principles underlying the test procedures. Id.

Mr. Corpus may not testify about the methodology for the tests he performed on the hair samples, the reliability of the tests, or the results of the tests. For such testimony to be admissible, plaintiffs must demonstrate that the tests Mr. Corpus performed are generally accepted in the scientific field of toxicology and that the tests and methodologies are accurate and reliable. Mr. Corpus lacks the necessary education, professional training or experience to testify about what is generally accepted in the field of toxicology and which tests and methodologies are accurate and reliable.

Mr. Corpus also may not testify as to the rate of human hair growth. Plaintiffs have presented no evidence that Mr. Corpus can provide peer-reviewed and accepted authority on hair growth rates. The article recently supplied by Mr. Corpus from the American Journal of Forensic Toxicology concerns the extraction of cocaine metabolites from hair, and does not analyze or evaluate hair growth rates. There is a single reference to hair growth in the introduction to the article, which states:

Hair testing for drugs of abuse offers the potential for detection of drug exposure over an extended period of time. Because hair grows at an average rate of 1–1.5 cm/month, it may be possible to test hair lengths that represent months to years of potential drug exposure.

Cone, Yousefnejad, Darwin and Maguire, supra, at 250.

As defendants note, the article contains no reference to pinpointing dates of past exposure to drugs or hair growth rates, and contains no discussion of studies on the accuracy, reliability or validity of pinpointing dates of past drug exposure based on hair growth rates. In addition, the article merely states that there may be “potential” for detection of drug exposure, and that it “may be possible” to test hair lengths. Finally, the article relates to hair testing for cocaine use, not prescription drug use.



The article does not render admissible Mr. Corpus' opinions about when and if Ms. Lueken purportedly ingested chlorpromazine and carbamazepine.

Finally, Mr. Corpus may not testify about the results of blood tests on plaintiff Teasley which were taken and tested by another laboratory, or attempt to correlate plaintiffs' physical symptoms with their alleged ingestion of prescription medications, because he is not a toxicologist or physician and lacks the necessary medical training to offer such testimony. Cf. Jones, 188 F.3d at 723-24.

That Mr. Corpus may have testified in other cases does not compel the admission of his testimony in this case for two reasons. First, whether an expert's testimony is properly admitted depends upon the facts and circumstances of each case, and the expert's proposed testimony in the context of the case. See Group Health Plan, Inc. v. Philip Morris USA, Inc., 344 F.3d 753, 759-60 (8th Cir. 2003) (district court did not clearly err in excluding testimony of physician and economics professor at MIT, whose testimony had been admitted by every other court to consider it, where the testimony was speculative in the context of the case). Second, plaintiffs have not provided the Court with adequate information concerning the nature and scope of Mr. Corpus' testimony in any of the other cases, and have not shown that Mr. Corpus has ever testified concerning the subject matter of GC/MS hair analysis or human hair growth rates. See footnote 2, supra. Thus, the assertion that he testified in other cases is not probative of the issue whether his testimony should be admitted in this case.

For the foregoing reasons, the Court concludes that plaintiffs have failed to meet their burden to show by a preponderance of the evidence that Mr. Corpus' testimony is admissible. See Lauzon, 270 F.3d at 686 (citing Daubert, 509 U.S. at 592) (burden of proof). Defendants' motion to exclude

the testimony of plaintiffs' expert Mr. Corpus will therefore be granted as discussed in this memorandum and order.

**B. Request for Additional Time to Secure Expert.**

In their response in opposition to defendants' Daubert motion, plaintiffs request additional time to secure another expert to the extent the Court precludes Mr. Corpus from testifying. The Court declines to allow plaintiffs additional time to cure the deficiencies in their expert testimony. Plaintiffs had adequate opportunity to evaluate and examine Mr. Corpus' qualifications, as well as to confirm the reliability and validity of his tests, before they disclosed him as an expert. Plaintiffs have also had the opportunity to respond to defendants' challenges to his testimony. Plaintiffs were on notice that defendants were challenging their expert but made no attempt to add or substitute other evidence, even after they learned that their expert was not a medical doctor. See Weisgram v. Marley Co., 528 U.S. 440, 456 (2000) ("[A] litigant's failure to buttress its position because of confidence in the strength of that position is always indulged in at the litigant's own risk" (quoting Lujan v. National Wildlife Fed., 497 U.S. 871, 897 (1990))). "[F]airness does not require that a plaintiff, whose expert witness testimony has been found inadmissible under Daubert, be afforded a second chance to marshal other expert opinions and shore up his case . . . ." Nelson v. Tennessee Gas Pipeline Co., 243 F.3d 244, 250 (6th Cir. 2001), cert. denied, 534 U.S. 822 (2001); see also Weisgram, 528 U.S. at 455 ("Since Daubert, . . . parties relying on expert evidence have had notice of the exacting standards of reliability such evidence must meet.").

**Conclusion.**


For the foregoing reasons, the Court concludes that the proffered testimony of plaintiffs' expert Mr. Corpus does not meet the qualification standard set forth in Rule 702, Federal Rules of

Evidence, and Daubert, for the reasons discussed herein. Defendants' motion to exclude the testimony of this witness should therefore be granted.

Accordingly,

**IT IS HEREBY ORDERED** that defendants' motion to exclude evidence from plaintiffs' expert Mr. Ben Corpus is **GRANTED** [Doc. 75]

**IT IS FURTHER ORDERED** that plaintiffs' request for additional time to obtain another expert is **DENIED**.

  
**CHARLES A. SHAW**  
**UNITED STATES DISTRICT JUDGE**

Dated this 27th day of October, 2005.